

Tentative agenda:

Aug. 19, 10:30 am Meeting with St. Louis Park

1st floor conference room, 7305 Oxford St., St. Louis Park, MN

St. Louis Park: Jay Hall, Mark Hanson

?Summit Envirosolutions: Bill Gregg?

MPCA: Nile Fellows, Dave Scheer

US EPA: Michelle Kerr

Vertellus: John Jones

Discuss current data for the Reilly Tar Superfund site and the gradient control system.

Aug. 19, 1 pm Observe Weekly Highway 7 Construction Meeting

MnDOT trailer field office located on the southwest quadrant (of Hwy 7 & Louisiana Ave.) parking lot.

Numerous project contractors.

Aug. 19, 1:30 pm Highway 7 Project Meeting

St. Louis Park: Joe Shamla, ?Jay Hall?

SEH Inc.: Al Sunderman, John Kinney

Summit Envirosolutions: Bill Gregg

MPCA: Nile Fellows, Dave Scheer

US EPA: Michelle Kerr

Vertellus: John Jones

Discuss scope and duration of impacts from the Highway 7 project to the Reilly site groundwater gradient control network. Discuss status of MCES and NPDES permits associated with the project and well re-routes.

Aug. 19, 2 pm Highway 7 Project Site Walk

SEH Inc.: Al Sunderman and/or John Kinney

MPCA: Nile Fellows, Dave Scheer

US EPA: Michelle Kerr

Vertellus: John Jones

*Please bring a hard hat, safety shoes, and a safety vest.

Aug. 20, 10 am Meeting with Edina

ED PW Conference Room 1, 7450 Metro Blvd, Edina, MN

Edina: David Goergen

MPCA: Nile Fellows, Dave Scheer

US EPA: Michelle Kerr

Discuss current data for the Reilly Tar Superfund site and Edina well trends.

*Jay Hall
Michele Hanson
Bill Grogan
L. Johnson*

**Reilly Tar & Chemical Superfund Site
(St. Louis Park Plant)**

August 2013 Briefing for City of St. Louis Park

US EPA R5 Superfund; M. Kerr

312.886.8961 / kerr.michelle@epa.gov

MPCA Superfund Remediation; N. Fellows

651.757.2352 / nile.fellows@state.mn.us

MPCA Superfund Remediation; D. Scheer

651.757.2693 / dave.scheer@state.mn.us

Discussed all, some questions, what to expect next.

Facts

- Polycyclic aromatic hydrocarbon (PAH) concentrations have exceeded Consent Decree (CD-RAP) advisory levels (Table 1) and show increasing trends in the Prairie du Chien aquifer. (Refer to data for wells E7, E13, SLP6, SLP10, W23, W48, W403, three of which are municipal supply wells without treatment units.)
- In municipal well influent monitored in association with the Reilly Superfund site there is no apparent immediate human health risk in comparison with current PAH toxicological data (US EPA Tapwater Screening Levels, TWSLs; MDH Health Risk Limits, HRLs, Table 2).
- The CD-RAP requires that W48 pump as part of the gradient control system for the Prairie du Chien aquifer (Section 7.4.2), and it has not been active since at least September 1993. The agencies previously directed City and Reilly to modify the system in June of 1995.
- Contamination greater than current risk criteria (TWSLs/HRLs) is in the three uppermost aquifers: Drift, Platteville, and St. Peter, as well as a source area well in the Prairie du Chien on the Reilly site that is continuously pumped. A separate gradient control system associated with the Reilly site exists for the three uppermost aquifers.
- EPA and MPCA are taking action to respond to this contamination. The agencies will direct the performing and responsible parties to modify the groundwater gradient control system for the Prairie du Chien aquifer, pursuant to CD-RAP Section 7.4.1 in order to prevent the further spread of ground water exceeding any of the Drinking Water Criteria defined in Section 2.2 of the CD-RAP, and to halt increasing PAH concentrations in neighboring community municipal wells.

Municipal Well Review

For naphthalene and benzo(a)pyrene equivalents (cPAH), data for Edina municipal wells monitored in 2012 (E2, E3, E7, E13, E15) are in most cases one and sometimes two orders of magnitude below EPA tapwater screening levels. Relative to the TWSLs for non-carcinogenic PAH (oPAH), concentrations in Edina municipal wells are even farther below these criteria. However, two Edina municipal wells (E7, E13) have increasing trends of oPAH, and concentrations of oPAH that exceed CD advisory levels.

cPAH (E7, B(a)P, N(a)h) &

The St. Louis Park municipal wells tested in 2012 (SLP4, 6, 10, 11, 12, 13, 14, 16) do not exceed TWSLs. SLP10 has a increasing cPAH trend but naphthalene is two orders of magnitude below the TWSL and the well has carbon treatment. SLP6 has an increasing oPAH trend but the oPAHs are four orders of magnitude below TWSLs, and naphthalene (oPAH in CD) is 1-2 orders of magnitude below the TWSL. However, PAH exceed CD advisory levels in SLP6.

The Hopkins municipal well H6 and Minnetonka municipal well MTKA6 tested in 2012 do not have concentrations of PAH at any level of concern and have no trends.

Proposed Short-Term Goals

- Contain the PAH plume
- Update and modify CD clean up criteria to align with modern PAH toxicological science

Table 1. CD-RAP Criteria

<u>Parameter</u>	<u>Advisory Level</u>	<u>Drinking Water Criterion</u>
The sum of benzo (a) pyrene and dibenz(a,h)anthracene	3.0 ng/l*	5.6 ng/l
Carcinogenic PAH	15 ng/l**	28 ng/l**
Other PAH	175 ng/l	280 ng/l

Table 2. US EPA, MDH, and MPCA groundwater screening and action levels.

TWSLs are approximately the same as, but slightly more conservative than the Minnesota Health Risk Limits (HRLs).

	US EPA Tapwater 1×10^{-5} Screening Level	US EPA MCL ¹	MDH HRL ²	Current MPCA Drinking Water Criteria
Units	µg/L	µg/L	µg/L	µg/L
Risk Threshold (ELCR / HI)	1×10^{-5} / 1	-	1	Varies
Exposure Pathways	Ingestion, inhalation, contact	Ingestion	Ingestion	Varies
Promulgated?	No	Yes	Yes	No
CARCINOGEN PAHs				
Benzo(a)pyrene TEF	0.029	0.2	-	0.05
Benzo(j)fluoranthene	0.056	-	-	-
Naphthalene*	0.14	-	-	300
Quinoline	0.021	-	-	-
NON-CARCINOGENIC PAHs				
Acenaphthene	400	-	400	400
Anthracene	1,300	-	2,000	2000
Fluoranthene**	630	-	300	300
Fluorene	220	-	300	300
Naphthalene	6	-	300	300
Pyrene	87	-	200	200

¹ Maximum Contaminant Limit

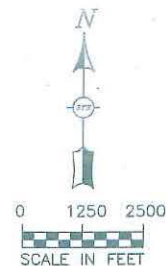
² Health Risk Limit

* = Naphthalene has both cancer and non-cancer screening levels. It is recommended that the more conservative cancer screening levels be used for this assessment.

** = Fluoranthene screening level is greater than Drinking Water Criteria. Further discussion should take place regarding this compound.

Table 3. US EPA Carcinogenic PAH Toxicity Equivalent Factors (TEF)

Compound	TEF
Benzo(a)pyrene	1
Benz(a)anthracene	0.1
Benzo(b)fluoranthene	0.1
Benzo(k)fluoranthene	0.01
Chrysene	0.001
Dibenz(a,h)anthracene	1
Indeno(1,2,3-c,d)pyrene	0.1



6/13/2013 USEPA DRAFT
Review Notes for 2012
Annual Monitoring Report

eedance of drinking water level,
2

eedance of advisory level,
2

creasing [cPAH] trend,
data

creasing [oPAH] trend,
data

L / INDUSTRIAL /
ING WELL NAME

MATE LOCATION OF THE
ED OPCJ MONITORING

ATE EXTENT OF PAH PLUME

MAP PROVIDED BY STS GIS.



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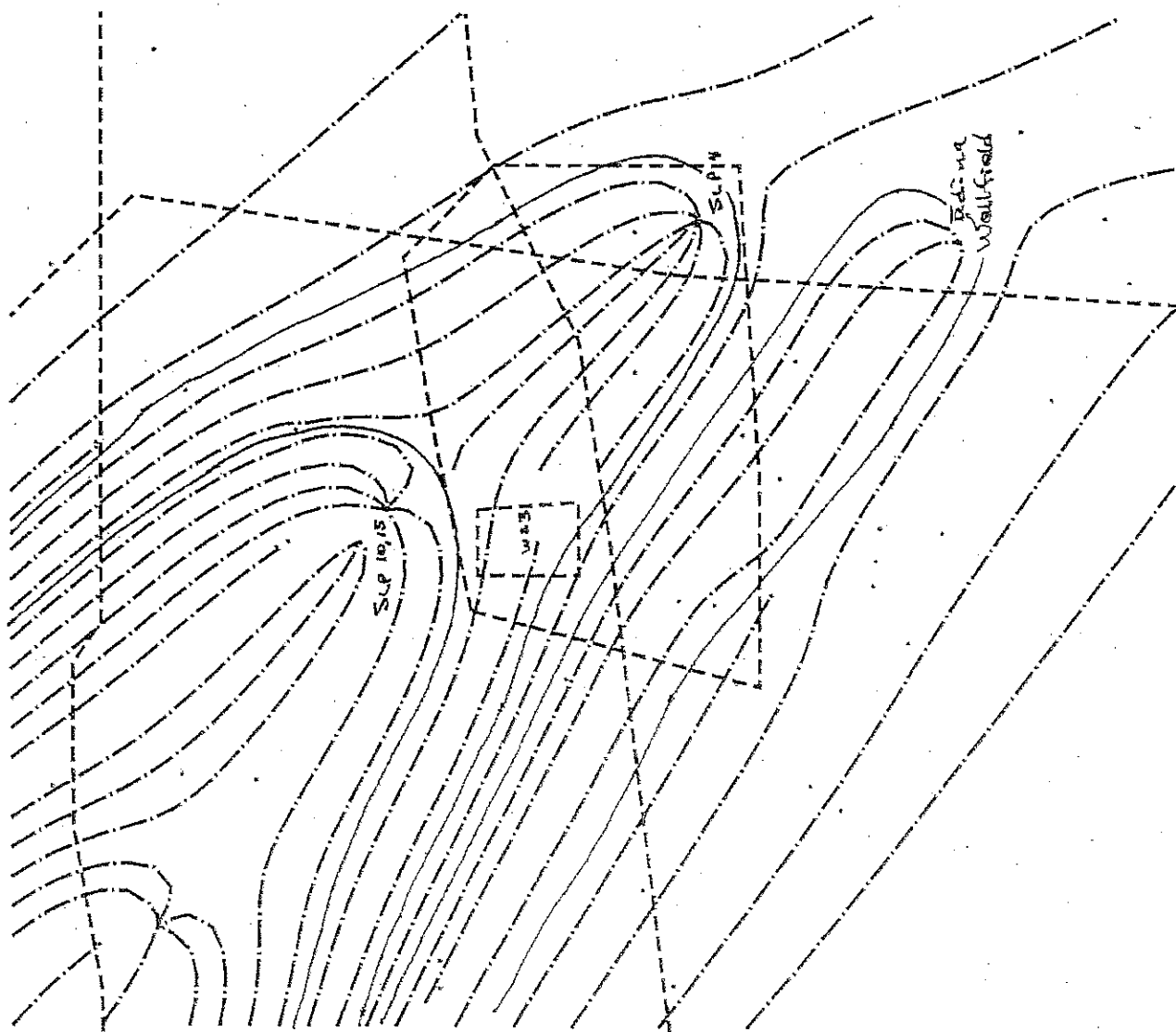
PROPOSED LOCATIONS OF THE NEW OPCJ MONITORING WELLS
HYDROGEOLOGICAL ANALYSIS CONDUCTED TO SUPPORT THE 3RD FIVE-YEAR REVIEW REPORT
REILLY TAR & CHEMICAL CORPORATION SUPERFUND SITE
CITY OF ST. LOUIS PARK, HENNEPIN COUNTY, MINNESOTA
FOR: MINNESOTA POLLUTION CONTROL AGENCY

Drawn:	TAK	8/02/2006
Checked:	RLD	8/02/2006
Approved:	RLD	8/02/2006
PROJECT NUMBER	200604690	
FIGURE NUMBER	13	

Figure 2

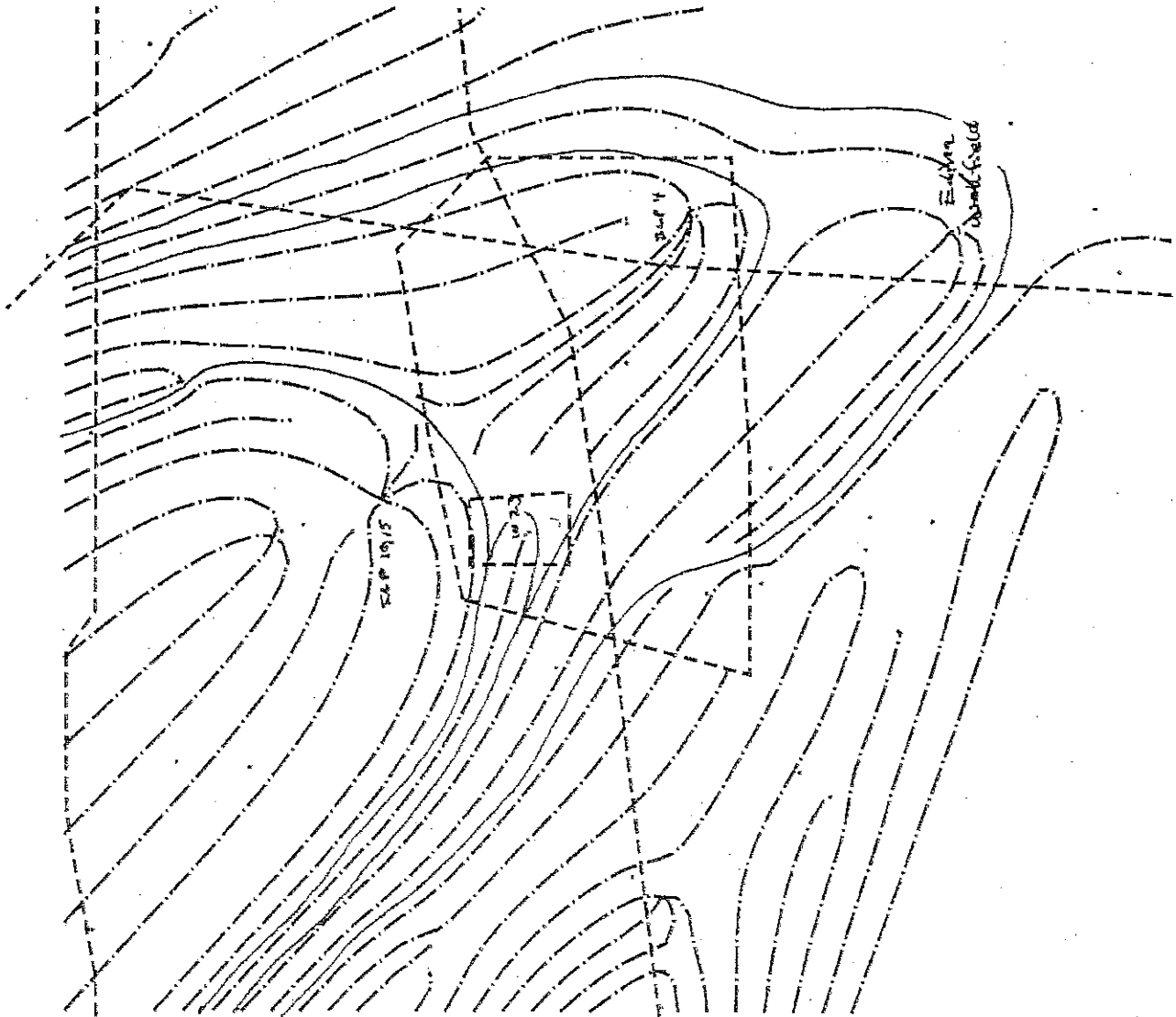
Spring 1992 Pump Rates

SLP 4 900 3 PM
 SLP 6 0 "
 W 48 0 "



SLP 10.15

Figure 6



Summer	1972	Pump	Rates
SLP 4	200	gpm	
SLP 6	0	gpm	
W 48	0	"	

Gradient control simulations utilize the same aquifer properties as the calibrated model and 1992 pumping rates of 90 high capacity wells that utilize the OPCJ. Pumping rates for these wells were obtained from the database maintained by the Department of Natural Resources Division of Waters. Simulations were conducted at CD-RAP designated pumping rates, present pumping rates, and other possible pumping rates. The gradient controls were plotted using the particle tracking function of the SLAEMS program, allowing for delineation of capture zones of gradient control wells. The capture zone plots are attached and are discussed below:

Figures 1, 2, and 3 are spring pumping season gradient control simulations. Figures 4 through 8 are summer season simulations.

Figure 1 shows capture zones for winter season pumping rates specified in the CD-RAP for wells SLP 4 and W48 and actual 1992 pumping rates for other wells. The combined capture zone for SLP 4, SLP 6 and SLP 10 & 15 appears to be effective in controlling the flow of contaminated ground water from the site with the possible exception of a narrow volume directly down gradient from W 23. It is impossible to say, within the limitations of the model, whether this small volume of contaminated ground water is actually being captured or not; unfortunately this volume of contaminated ground water contains some of the most highly contaminated ground water in the OPCJ in the vicinity of the site.

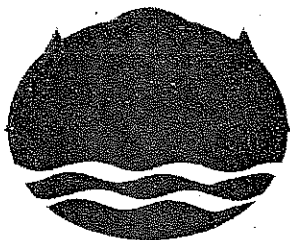
Figure 2 shows capture zones for SLP 4 pumping at 900 gpm, SLP 6 off-line, and W48 off-line. A large volume of contaminated ground water in the OPCJ can be seen escaping the site under this pumping scenario.

Figure 3 shows the projected capture zone with SLP 4 only pumping at 1200 gpm. It appears that a significant volume of contaminated ground water is leaving the site under this scenario.

Figure 4 shows capture zones for SLP 4 pumping at the CD-RAP specified rate and SLP 6 and W 48 pumping at 1980 rates. These were the rates used in the original design of the gradient control well system. This combination of pumping wells appears to be capable of controlling the area of contamination in the OPCJ within the limitations of accuracy of the model.

Figure 5 shows capture zones under the same rates as Figure 4 except that W 48 is not pumping. The capture zone for the southern portion of the area of contamination is considerably diminished here without W 48 in operation. It appears that a considerable volume of contaminated ground water is leaving the area of the site.

Figure 6 shows capture zones with SLP 4 only in operation. This pumping scenario is clearly not acceptable as nearly the entire southwestern of the area of contamination is not under hydraulic control.



Minnesota Pollution Control Agency

CERTIFIED LETTER
RETURN RECEIPT REQUESTED

JUN 7 1995

City Manager
City of St. Louis Park
5065 Minnetonka Boulevard
St. Louis Park, Minnesota 55416

President
Reilly Industries
1510 Market Square Center
151 North Delaware Street
Indianapolis, Indiana 46204

RE: United States of America, et al. vs. Reilly Tar & Chemical Corporation, et al.
File No. CIV 4-80-469, Consent Decree - Remedial Action Plan
Section 7.4.1., Prairie Du Chein-Jordon Aquifer Contingent Actions

Dear Gentlemen:

The U.S. Environmental Protection Agency (EPA) and the Minnesota Pollution Control Agency (MPCA) have reviewed monitoring and modeling data pertinent to the operation of the Prairie Du Chein-Jordon Aquifer's (OPJC's) gradient control system. According to the Consent Decree-Response Action Plan (CD-RAP) the gradient control system consists of the following three wells SLP4, SLP6, and W48. The gradient control system is designed to prevent the spread of contaminated ground water to neighboring community's water supplies.

The EPA and the MPCA have completed a series of modeling runs using the Single Layer Analytical Element Models (SLAEMS) with the objective of evaluating the gradient control system as it is presently implemented in the OPJC. The development of this model has followed the modeling work done by the United States Geological Survey (USGS) under contract to the MPCA in order to design the gradient control system in the early 1980's. The model was calibrated to 1880 era pre-pumping water levels as well as 1980 water levels, which represent a period of considerable pumping stress. These calibrations use the same aquifer properties, pumping rates, and water levels as the USGS model calibration. The agreement between the SLAEM and the USGS model is very good, with water levels generally within 10 feet of measured levels, and accuracy at least as good as the USGS model. The SLAEMS differs from the MODFLO™ used by the USGS in that MODFLO™ is a finite difference model that uses boundaries to simulate far-field conditions and a grid system to discretize aquifer domains. Following calibration of the model, files were set up to simulate several gradient control pumping scenarios during the spring and summer pumping seasons. The spring season simulation uses average pumping rates for the months of October through March. This represents the time of the year when pumping rates are lowest. The summer season simulation uses April through September pumping rates and represents the heavy pumping season.

Figure 7 shows capture zones with SLP 4 only pumping at a rate of 1200 gpm. While the capture zone is larger than shown in Figure 6, a significant of contaminated ground water appears to be leaving the site.

Figure 8 shows capture zones with SLP 4 pumping at 1200 gpm and SLP 6 at 690 gpm. This scenario appears to be nearly effective in providing hydraulic control over the area of contamination, with the possible exception of the extreme southwestern portion of the contaminated area and the same small volume directly downgradient of W 23 which appears in most of the simulations.

Conclusions:

1. SLP 6 alone, pumping at either 900 or 1200 gpm is unacceptable in providing gradient control over contaminated ground water in the vicinity of the site during either the spring or summer pumping seasons.
2. SLP 4 pumping at 900 gpm and SLP 6 pumping at 690 gpm appears to be marginally effective in providing necessary gradient control during the spring pumping season.
3. SLP 4 pumping at 1200 gpm in combination with SLP 6 pumping at 690 gpm appears to be marginally ineffective in providing hydraulic control at the site.
4. If SLP 6 is used for gradient control, it will pull the plume toward it and will likely exceed the drinking water criteria within a year or two. W 48 is better situated for gradient control as it is closer to the site. Pumping W 48 will not expand the size of the plume or pull it closer to the Edina well field.

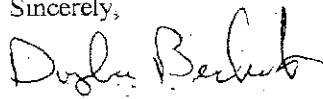
The EPA and the MPCA hereby, notify pursuant to Section 7.4.1. of the CD that Reilly Tar & Chemical Corporation must submit a plan for gradient control system modification in order to prevent the spread of ground water exceeding any of the Drinking Water Criteria defined in Section 2.2. Water level data submitted in the Annual Monitoring Reports and well pumping data received from the Minnesota Department of Natural Resources indicate that the current gradient control system is not sufficient to prevent the spread of contaminated ground water. The required plan may include alteration of specified pumping at gradient control wells, additional gradient control wells or returning to service

City Manager
President
Page 4

former gradient control wells. Within 90 days of receipt of this letter Reilly shall submit to the Agencies the gradient control system modification plan. The EPA and the MPCA shall review the plan in accordance with Part G of the Consent Decree.

Please call either Project Manager if you have concerns or questions on this letter.

Sincerely,



Douglas Beckwith
Project Manager
(612) 296-7715
Superfund Unit
Site Response Section
Ground Water and Solid Waste Division
Minnesota Pollution Control Agency



Darryl Owens
Remedial Project Manager
(312) 886-7089
Remedial Enforcement
Response Branch
U.S. Environmental Protection Agency

DB:DO:jlh

Enclosure

[illegible]

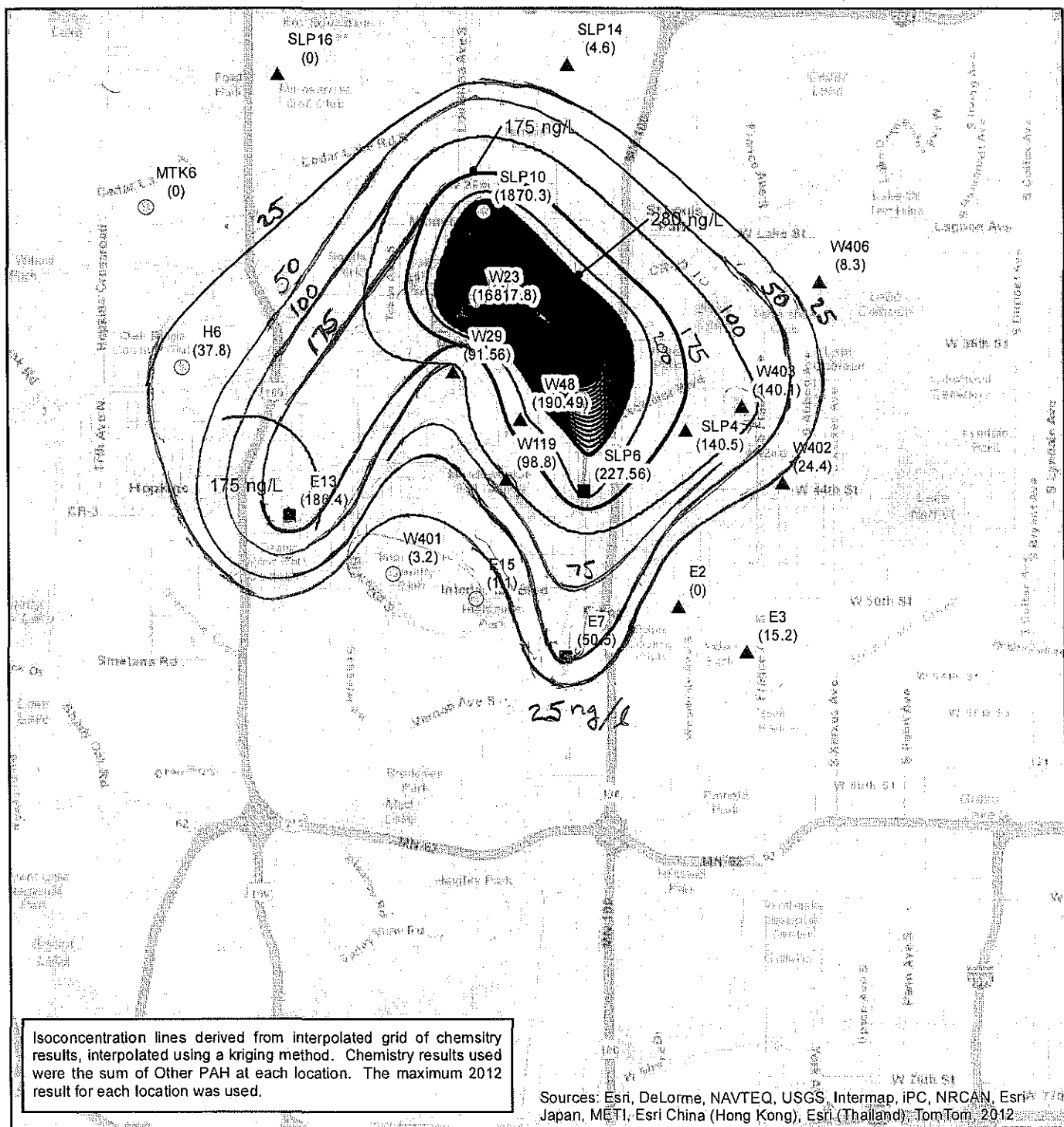
Notes: Double vertical line - screened section or open hole section of the well

Gradient Control Upper Aquifers

9 active 50 gpm
3 active pumping 50 gpm
10 active @ 20 gpm
120-421 off

Should Platteville w421 be pumping? or routed?
Dewatering from Hwy 7 construction extracts 80-800 gpm
of Duff groundwater - no concern w/ w420 being off
temporarily.

Revised Iso-C maps



Map adapted from U.S. and Canada Detailed Streets (2008), Tele Atlas North America, Inc., ESRI.

Explanation

Well (Sum of OPAH - ng/L)

Trend (See Table 3)

▲ Decreasing

○ No Change

■ Increasing

— Isoconcentration sum of OPAH (CI = 100 ng/L)

— CD-RAP Advisory Level and Drinking Water Criterion

REILLY SITE

1 inch = 5,000 feet

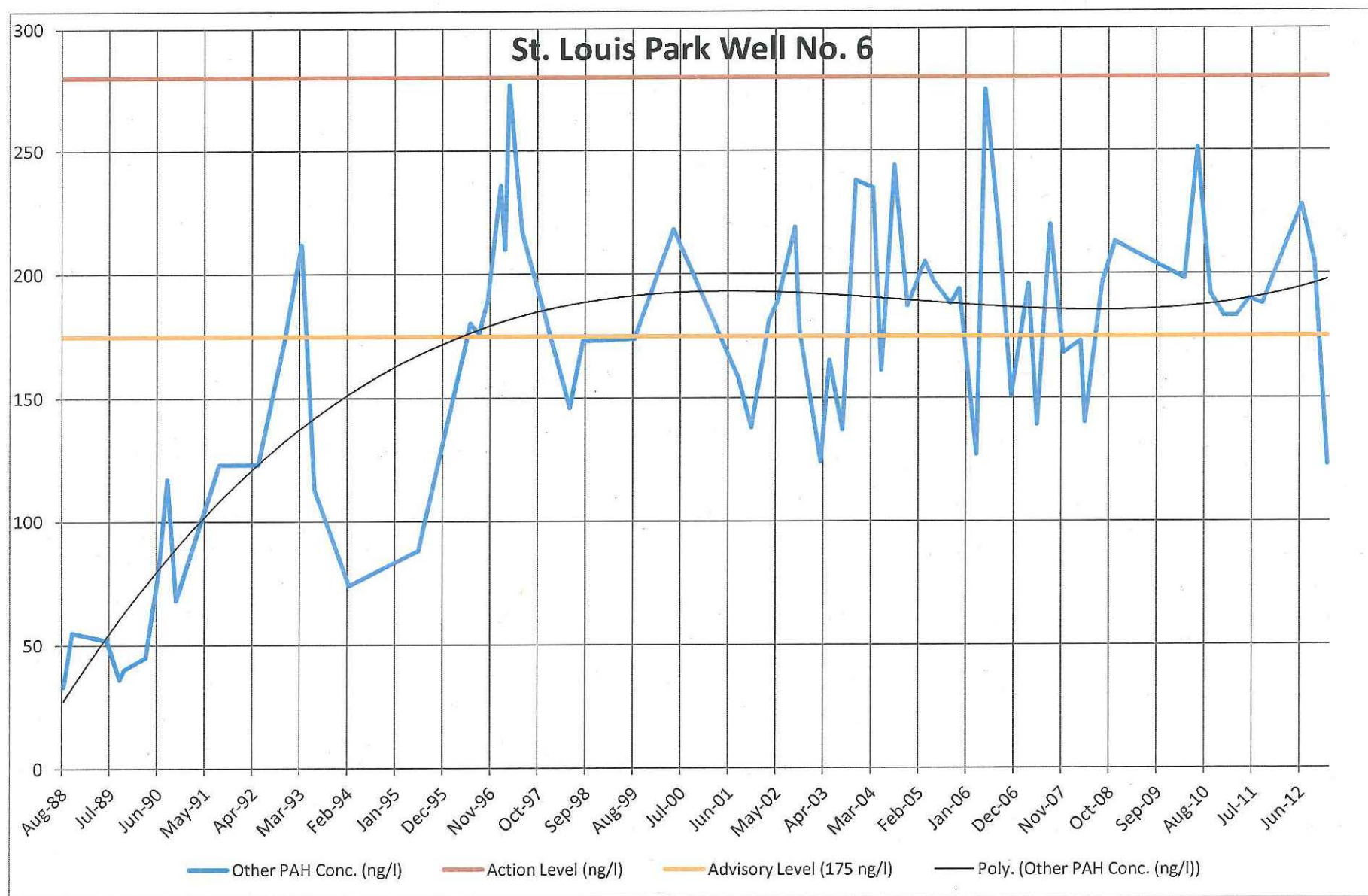
0 5,000 Feet

Sum of Other PAH
Isoconcentration Map Prairie Du Chien-Jordan Aquifer - 2012
2012 Annual Report
Reilly Site, City of St. Louis Park, Minnesota

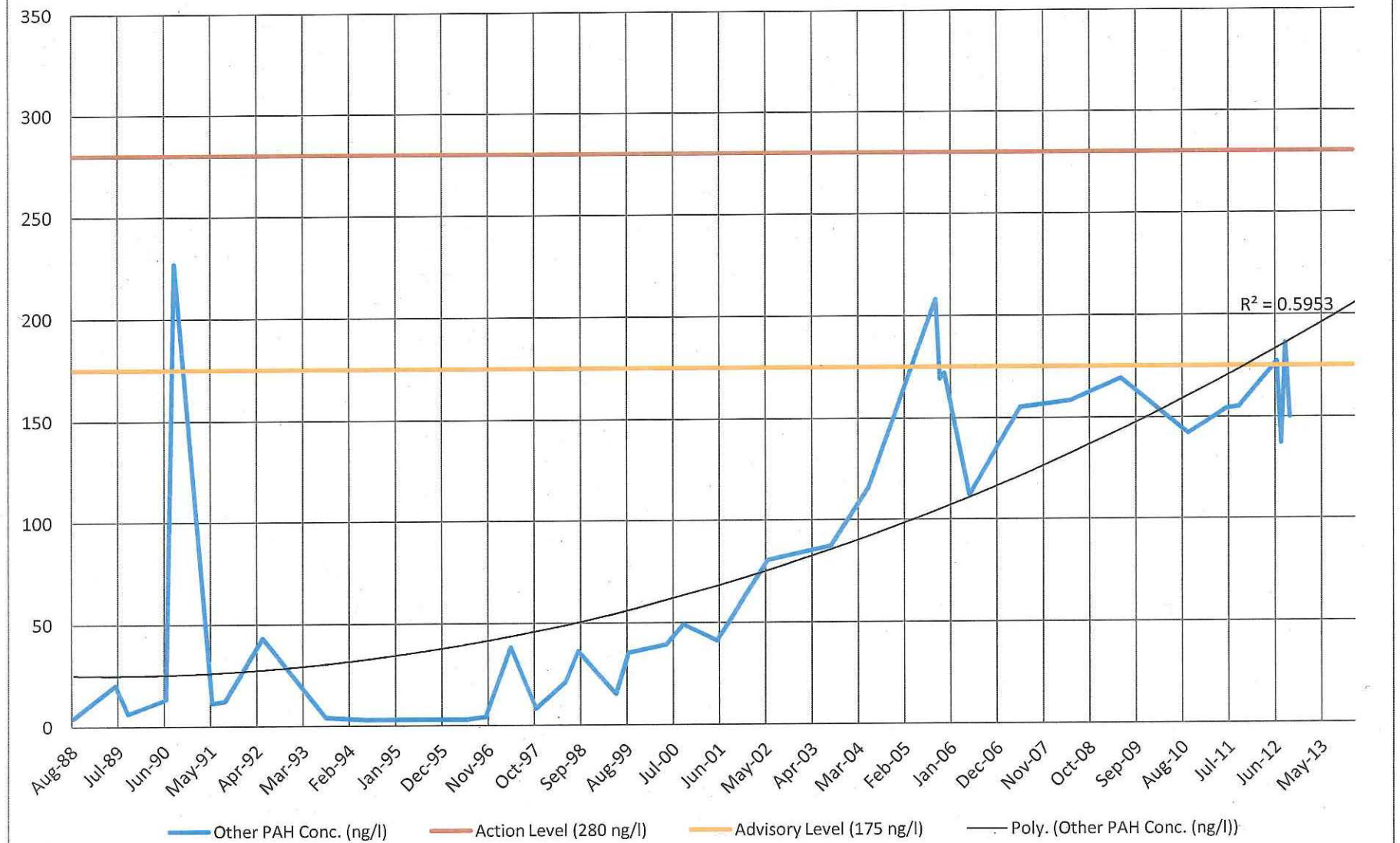


Figure 5

File: Fig4_PDCJ_OPAH
Summit Proj. No.: 0987-0007
Plot Date: 05-14-13
Arc Operator: PRB
Reviewed by: WMG



Edina Well No. 13



OPAH (sum) - E7

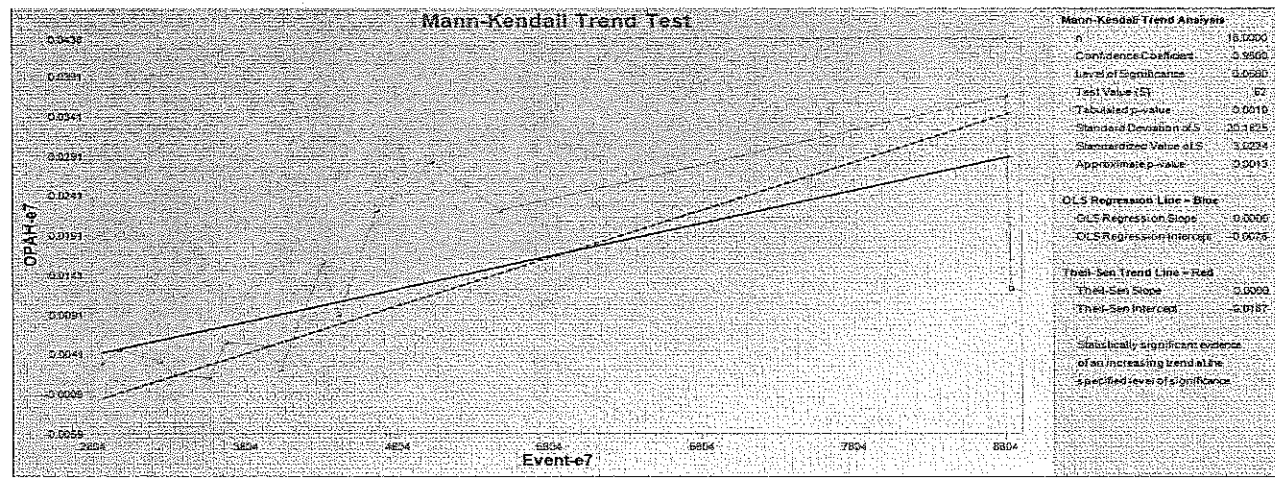
General Statistics

Number of Events	15
Number of Values	15
Minimum	0.0012
Maximum	0.0367
Mean	0.0115667
Geometric Mean	0.0070605
Median	0.0056
Standard Deviation	0.0111072
SEM	0.0028679

Mann-Kendall Test

Test Value (S)	62
Tabulated p-value	0.001
Standard Deviation of S	20.182501
Standardized Value of S	3.0224203
Approximate p-value	0.0012538

Statistically significant evidence of an increasing trend at the specified level of significance.



CPAH (sum) - E7

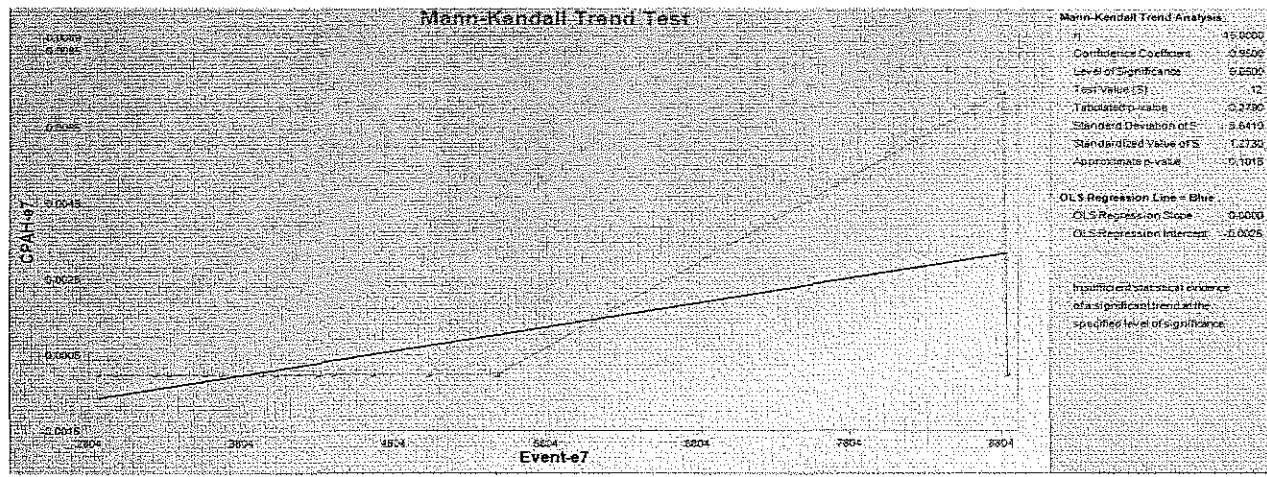
General Statistics

Number of Events	15
Number of Values	15
Minimum	0
Maximum	0.0074
Mean	4.93E-04
Geometric Mean	0
Median	0
Standard Deviation	0.0019107
SEM	4.93E-04

Mann-Kendall Test

Test Value (S)	12
Tabulated p-value	0.279
Standard Deviation of S	8.6409876
Standardized Value of S	1.2730026
Approximate p-value	0.1015086

Insufficient evidence to identify a significant trend at the specified level of significance.



Questions for Edina Meeting

8/20/2013

Does Edina currently receive data related to monitoring for the Reilly Tar & Chemical Superfund site in St. Louis Park? Would you like to?

No

yes

Is anyone in contact with you about the site? few years ago St. Louis Park met

Going forward, how would you like to engage as a stakeholder for the site? That is, what is your level of interest?

High, want to hear St. Louis Park's plan, AMRs, notification of milestones + big steps, CD needs be at the table

Do you monitor for any PAHs besides benzo(a)pyrene? Mgt does VOCs annual, PAH maybe every ~ 4 yrs.?

MPCA

NF, DS, MK - EPA

Wayne H. Hinkle

D. Gerson

Brian Olson

Edina

**Reilly Tar & Chemical Superfund Site
(St. Louis Park Plant)**

August 2013 Briefing for City of Edina
US EPA R5 Superfund; M. Kerr
312.886.8961 / kerr.michelle@epa.gov
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651.757.2352/nile.fellows@state.mn.us
MPCA Superfund Remediation; D. Scheer
651.757.2693/dave.scheer@state.mn.us

Facts

- Polycyclic aromatic hydrocarbon (PAH) concentrations have exceeded Consent Decree (CD-RAP) advisory levels (Table 1) and show increasing trends in the Prairie du Chien aquifer, specifically Edina wells E7 and E13.
- In municipal well influent monitored in association with the Reilly Superfund site there is no apparent immediate human health risk in comparison with current PAH toxicological data (US EPA Tapwater Screening Levels, TWSLs; MDH Health Risk Limits, HRLs, Table 2).
- EPA and MPCA are taking action with the performing and responsible parties for the site to respond to this contamination. The agencies are directing the performing and responsible parties to modify the groundwater gradient control system for the Prairie du Chien aquifer.
- Contamination greater than current risk criteria (TWSLs/HRLs) is in the three uppermost aquifers: Drift, Platteville, and St. Peter, as well a source area well in the Prairie du Chien on the Reilly site that is continuously pumped. A separate gradient control system associated with the Reilly site exists for the three uppermost aquifers.

Municipal Well Review

For naphthalene and benzo(a)pyrene equivalents (cPAH), data for Edina municipal wells monitored in 2012 (E2, E3, E7, E13, E15) are in most cases one and sometimes two orders of magnitude below EPA tapwater screening levels. Relative to the TWSLs for non-carcinogenic PAH (oPAH), concentrations in Edina municipal wells are even farther below these criteria. However, two Edina municipal wells (E7, E13) have increasing trends of oPAH, and concentrations of oPAH that exceed CD advisory levels.

Table 1. CD-RAP Criteria

<u>Parameter</u>	<u>Advisory Level</u>	<u>Drinking Water Criterion</u>
The sum of benzo (a) pyrene and dibenz(a,h)anthracene	3.0 ng/l*	5.6 ng/l
Carcinogenic PAH	15 ng/l**	28 ng/l**
Other PAH	175 ng/l	280 ng/l

Table 2. US EPA, MDH, and MPCA groundwater screening and action levels.

TWSLs are approximately the same as, but slightly more conservative than the Minnesota Health Risk Limits (HRLs).

	US EPA Tapwater 1×10^{-5} Screening Level	US EPA MCL ¹	MDH HRL ²	Current MPCA Drinking Water Criteria
Units	µg/L	µg/L	µg/L	µg/L
Risk Threshold (ELCR / HI)	1×10^{-5} / 1	-	1	Varies
Exposure Pathways	Ingestion, inhalation, contact	Ingestion	Ingestion	Varies
Promulgated?	No	Yes	Yes	No
CARCINOGEN PAHs				
Benzo(a)pyrene TEF	0.029	0.2	-	0.05
Benzo(j)fluoranthene	0.056	-	-	-
Naphthalene*	0.14	-	-	300
Quinoline	0.021	-	-	-
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Acenaphthene	400	-	400	400
Anthracene	1,300	-	2,000	2000
Fluoranthene**	630	-	300	300
Fluorene	220	-	300	300
Naphthalene	6	-	300	300
Pyrene	87	-	200	200

¹ Maximum Contaminant Limit

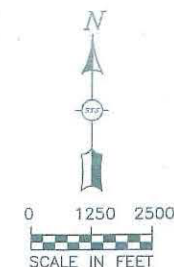
² Health Risk Limit

* = Naphthalene has both cancer and non-cancer screening levels. It is recommended that the more conservative cancer screening levels be used for this assessment.

** = Fluoranthene screening level is greater than Drinking Water Criteria. Further discussion should take place regarding this compound.

Table 3. US EPA Carcinogenic PAH Toxicity Equivalent Factors (TEF)




Compound	TEF
Benzo(a)pyrene	1
Benz(a)anthracene	0.1
Benzo(b)fluoranthene	0.1
Benzo(k)fluoranthene	0.01
Chrysene	0.001
Dibenz(a,h)anthracene	1
Indeno(1,2,3-c,d)pyrene	0.1



6/13/2013 USEPA DRAFT
Review Notes for 2012
Annual Monitoring Report

-  exceedance of drinking water level, 2012
-  exceedance of advisory level, 2012
-  increasing [cPAH] trend, all data
-  increasing [oPAH] trend, all data

LEGEND

-  MUNICIPAL / INDUSTRIAL / MONITORING WELL NAME
-  APPROXIMATE LOCATION OF THE PROPOSED OPCJ MONITORING WELLS
-  APPROXIMATE EXTENT OF PAH PLUME

NOTE: BASE MAP PROVIDED BY STS GIS.



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PROPOSED LOCATIONS OF THE NEW OPCJ MONITORING WELLS
HYDROGEOLOGICAL ANALYSIS CONDUCTED TO SUPPORT THE 3RD FIVE-YEAR REVIEW REPORT
REILLY TAR & CHEMICAL CORPORATION SUPERFUND SITE
CITY OF ST. LOUIS PARK, HENNEPIN COUNTY, MINNESOTA
FOR: MINNESOTA POLLUTION CONTROL AGENCY

Drawn:	TAK	8/02/2006
Checked:	RJD	8/02/2006
Approved:	RJD	8/02/2006
PROJECT NUMBER	200604690	
FIGURE NUMBER	13	

OPAH (sum) - E7

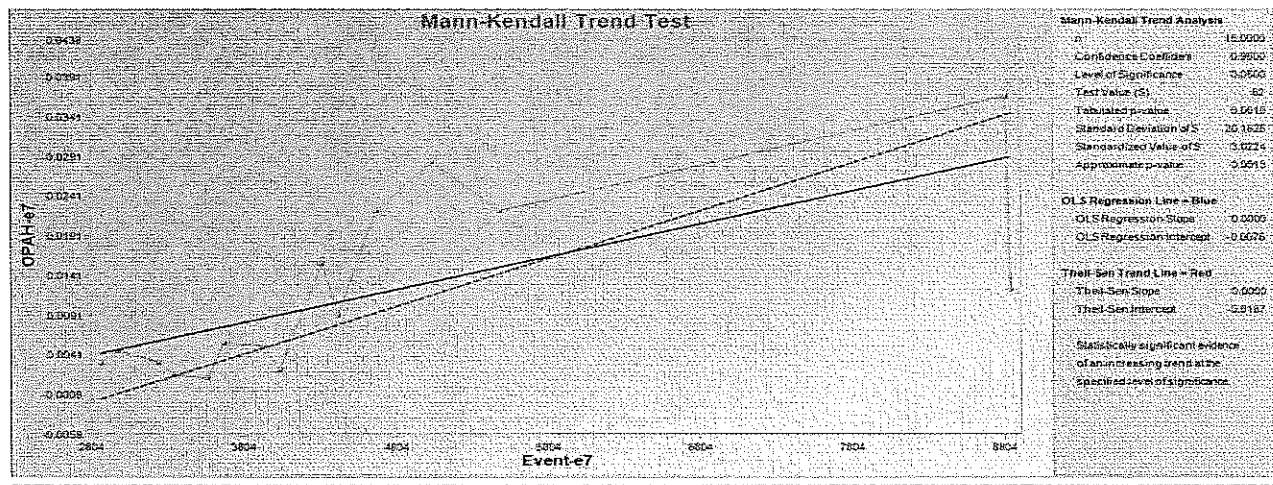
General Statistics

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Minimum	0.0012
Maximum	0.0367
Mean	0.0115667
Geometric Mean	0.0070605
Median	0.0056
Standard Deviation	0.0111072
SEM	0.0028679

Mann-Kendall Test

Test Value (S)	62
Tabulated p-value	0.001
Standard Deviation of S	20.182501
Standardized Value of S	3.0224203
Approximate p-value	0.0012538

Statistically significant evidence of an increasing trend at the specified level of significance.



CPAH (sum) - E7

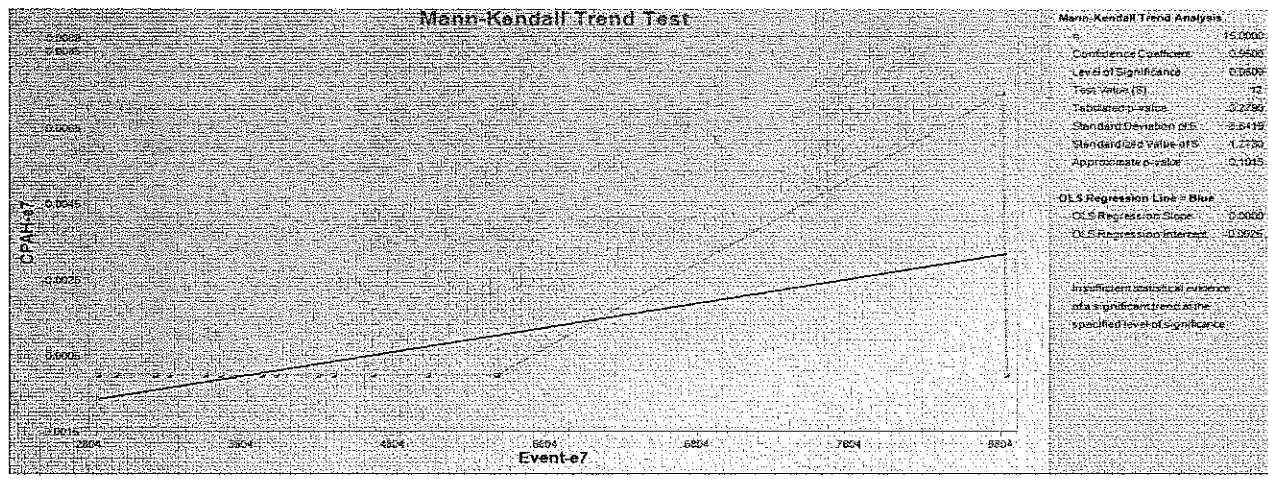
General Statistics

Number of Events	15
Number of Values	15
Minimum	0
Maximum	0.0074
Mean	4.93E-04
Geometric Mean	0
Median	0
Standard Deviation	0.0019107
SEM	4.93E-04

Mann-Kendall Test

Test Value (S)	12
Tabulated p-value	0.279
Standard Deviation of S	8.6409876
Standardized Value of S	1.2730026
Approximate p-value	0.1015086

Insufficient evidence to identify a significant trend at the specified level of significance.



1pm Hwy 7 mtg 8/14/13

Construction Mtg (observe)

Utility relocate - CSIP update
muck excavation starts today

temp. sheet pile installation

dewatering up & running - working well

City foreman 86; City asks when ~~new~~ one online (1st Sept.) sanitary bypass

erosion/sediment control

late fall - depending on muck excavations & exchanges
Nov.

safety / PPE issues

MUES line RAP w/in month to Agencies
working on muck excavation in SE quadrant
gradient control system off until? late fall

Gradient Control System Meeting
SEH, WNDOT, MUES, CSIP, MRA, EPA, Veeckelous

① Have cc of permit.

dewatering system now operating @ 500-800 gpm, wells along Hwy 7 E, currently
when foremain comes online, dewatering in S. will stop & move to north ✓ provided

② NPDES - erosion control & construction - have a cc ✓ provided

②.5 W23 reroute to sanitary alerted MUES Kyle Colvin, Mike Flaherty email

Soils going to SKB landfill, may change to Dencon & notify EPA

Air monitoring baseline + daily

Today digging 35-47 ft below old Hwy 7. - all mucky & going right to landfill.

See dewatering up & muck excavation
& wells
& treatment system

town in site catch pond for parking lot if soils needed to be stockpiled (SW BMP)

- City rent wide parking lot

- clean fill, surcharge

- muck excavation (smelly, visual impacts)

- dewatering system L oil/water, large filter, carbon, small filter → storm drains. Operated by 1000 gpm

- dewater pump of W23 & treat effluent 25 m/min

Title



Description

300m
1000ft
Scale 1:8828

"DISCLAIMER: The City of St. Louis Park does not warrant the accuracy nor the correctness of the information contained in this map. It is your responsibility to verify the accuracy of this information. In no event will The City of St. Louis Park be liable for any damages, including loss of business, lost profits, business interruption, loss of business information or other pecuniary loss that might arise from the use of this map or the information it contains. Map information is believed to be accurate but accuracy is not guaranteed. Any errors or omissions should be reported to The St. Louis Park."

Blue = water Green = sanitary sewer Orange = storm sewer

Meeting Agenda & Narrative Schedule (8/19/13)
T.H. 7 and Louisiana Ave Project
S.P. 2706 - 226

1. Utility Relocation Update:

- Arvig Communication:
- Centerpoint Energy:
- Comcast:
- Century Link:
- Xcel Energy:
- City of St Louis Park:
- MCES:

2. Construction Schedule for Week (8/19/13)

Stage 1

- Erosion Control Maintenance
- Grade for Bypass South Side of TH 7
- Muck Excavation
- Build permanent Grade EB 7 from BOP to Column Supported Embankment
- Haul Contaminated to SKB
- Close and Construct 37th Street
- Temporary Sheet pile installation
- H-Pile Installation Column Supported Embankment
- Dewatering
- Temp Bypass Sanitary in Muck Ex

3. Erosion / Sediment Control Schedule

- Weekly Walk Through











4. Safety Meeting Topic this week

- Discuss this week's activity's with project personal
- PPE
- Seat Belts
- CSM safety policies and disciplinary actions

5. Other/Submittals

- MnDOT
- St Louis Park
- Public Relations
- Traffic Control
- Possible Upcoming New Materials?
- Possible Upcoming New Activity's Sanitary Bypass

10-Day Forecast for Minneapolis, MN

			High / Low (°F)	Precip. %
Today Aug 19		Mostly Sunny	89°/68°	20 %
Tue Aug 20		Sunny	93°/70°	10 %
Wed Aug 21		Scattered T-Storms	90°/63°	30 %
Thu Aug 22		Isolated T-Storms	82°/59°	30 %
Fri Aug 23		Scattered T-Storms	82°/65°	40 %
Sat Aug 24		Mostly Sunny	88°/66°	0 %
Sun Aug 25		Mostly Cloudy	88°/63°	10 %
Mon Aug 26		Partly Cloudy	86°/63°	20 %
Tue Aug 27		Isolated T-Storms	85°/64°	40 %
Wed Aug 28		Partly Cloudy	81°/62°	10 %

Last Updated Aug 19 07:05 a.m. CT

Three Week Look-Ahead Project Schedule

Project Information:			T.H. 7 and Louisiana														Period Beginning:					08/19/13			Period Ending:					09/08/13			
Work Type	Job ID	Description	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8										
Erosion Control	1826	Temporary Erosion Control	M	T	W	Th	F	Sa	Su	M	T	W	Th	F	Sa	Su	M	T	W	Th	F	Sa	Su										
Traffic	1826	Traffic Control Maintenance																															
Traffic	1826	Day Time Lane Restrictions																															
Traffic	1826	Close 37th Street																															
Removals	1826	Mill 37th Street																															
Grading	1826	Grade 37th Street																															
Grading	1826	Bypass South Side of TH 7																															
Grading	1826	Muck Excavation																															
Granular Borrow	1826	Backfill Muck Excavation																															
Grading	1826	Muck Excavation																															
Grading	1826	Haul Contaminated to SKB as Needed																															
Underground	1826	MCES Sanitary																															
Underground	1826	Temp Cities Sanatary as Needed for Muck																															
Structures	1826	Drive H Pile Column Suported Embankment																															
Structures	1826	Drive Temp Sheet Piling / Muck Excavation																															
Resources			19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8										
Activity Description			M	T	W	Th	F	Sa	Su	M	T	W	Th	F	Sa	Su	M	T	W	Th	F	Sa	Su										
TranSignal	Sub	Traffic Control																															
Lucas Deconstruction	Sub	Clear and Grub																															
Blake Drilling	Sub	Dewatering																															
Minger Construction	Sub	Sanitary Sewer																															
Central Landscaping	Sub	Erosion Control																															
Egan Electric	Sub	Temp Signal System																															